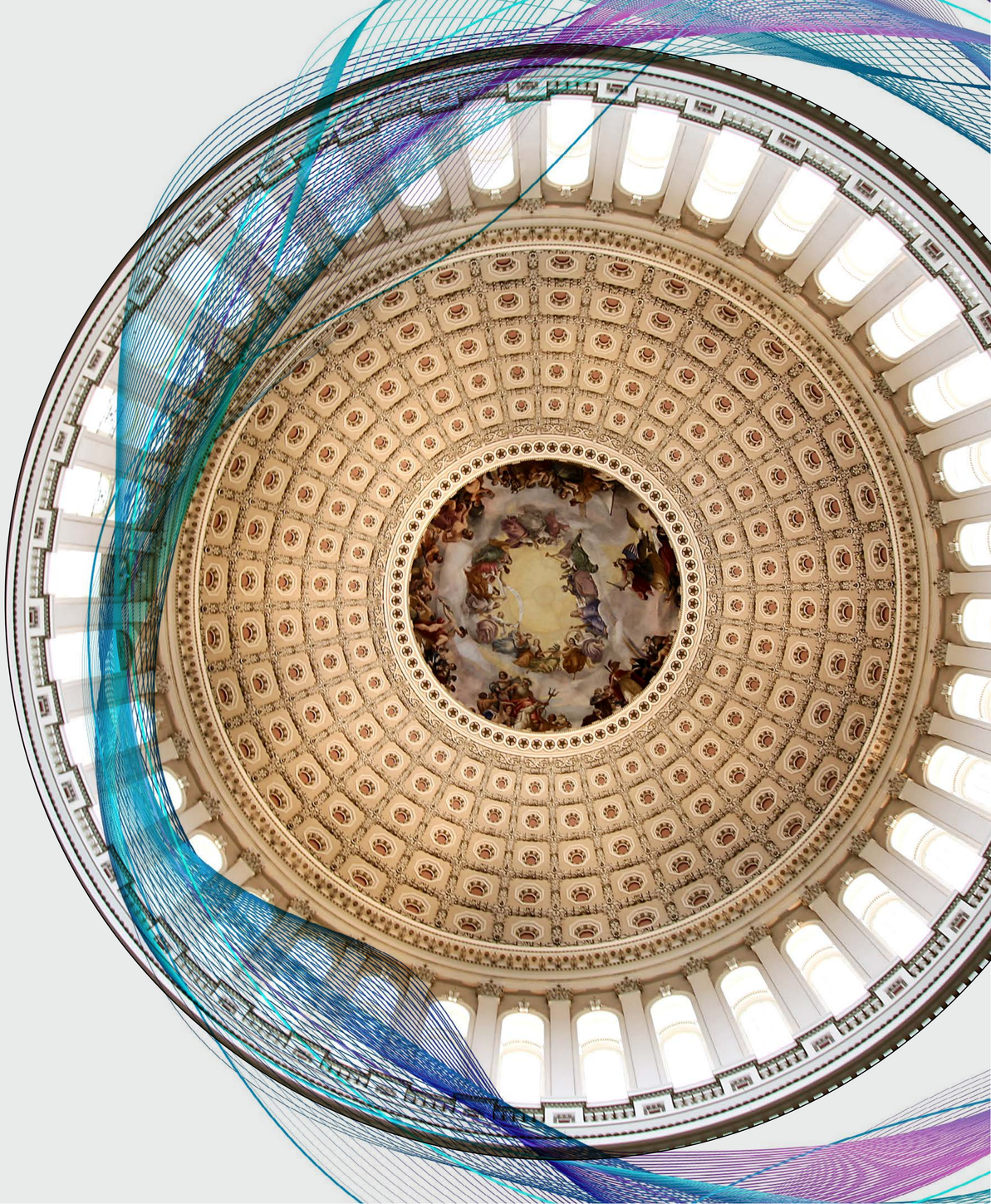
REPORT

The AI Advantage

Moving from exploration to impact



Executive summary

Federal agencies are embracing AI at an accelerating pace. While there are challenges, such as data readiness and infrastructure scaling, the overall momentum has shifted from discussion to action.

Agency leaders are optimistic about AI's role in improving operations and the delivery of mission outcomes and are eager to do more.

The key now is to scale AI efficiently and cost-effectively, transitioning from experimentation to execution, and ultimately to sustained usage. This requires trusted, secure, and well-governed foundations and deployments that deliver tangible outcomes.

With that goal in mind, we partnered with Wakefield Research to explore how federal agencies have approached AI adoption over the past year—and how they're preparing for the road ahead. This report shares takeaways from our research, along with recommendations to help agency leaders position themselves for long-term success.

5

Key takeaways

Strong foundations

Most agencies feel confident in their infrastructures, but see areas that need to be strengthened in order to scale.

Data is the bottleneck

Many agencies cite data quality and accessibility as their biggest hurdle, but they're confident these issues can be resolved.

Upskilling is critical

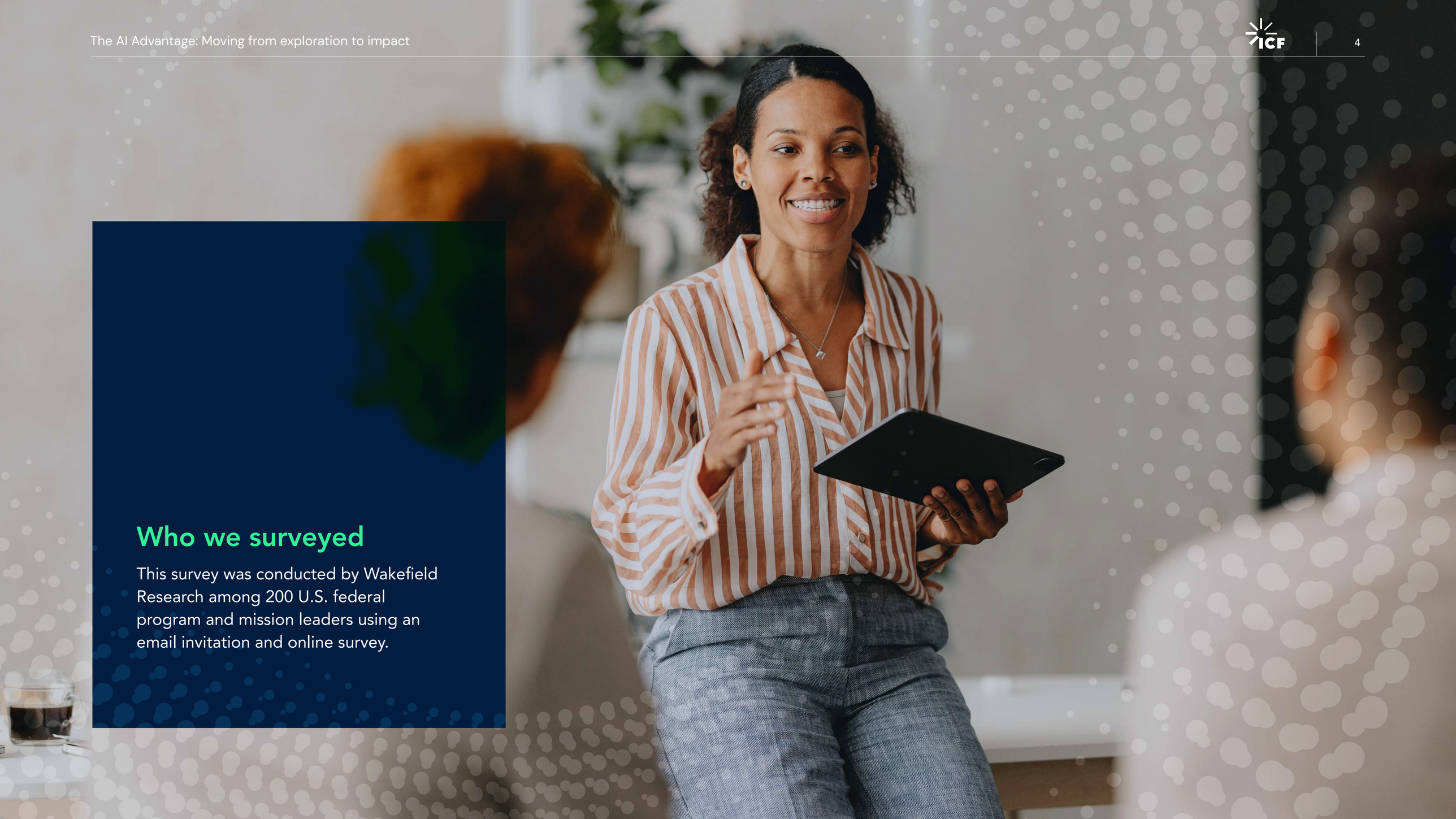
Agencies believe in their existing talent and are prioritizing workforce training to meet AI demands.

AI confidence is growing

The majority of agency leaders believe AI can meet their security standards.

Real progress is happening

More agencies are moving beyond exploration and into implementation; the next challenge is scaling.



Who we surveyed

This survey was conducted by Wakefield Research among 200 U.S. federal program and mission leaders using an email invitation and online survey.

The state of AI in federal agencies

Federal agencies aren't just talking about AI anymore—they're making real moves toward bringing it into everyday workflows and scaling it for maximum output. With nearly half of agencies running pilots and a small but growing number achieving large-scale adoption, AI is proving its value in improving efficiency, innovation, and service delivery.

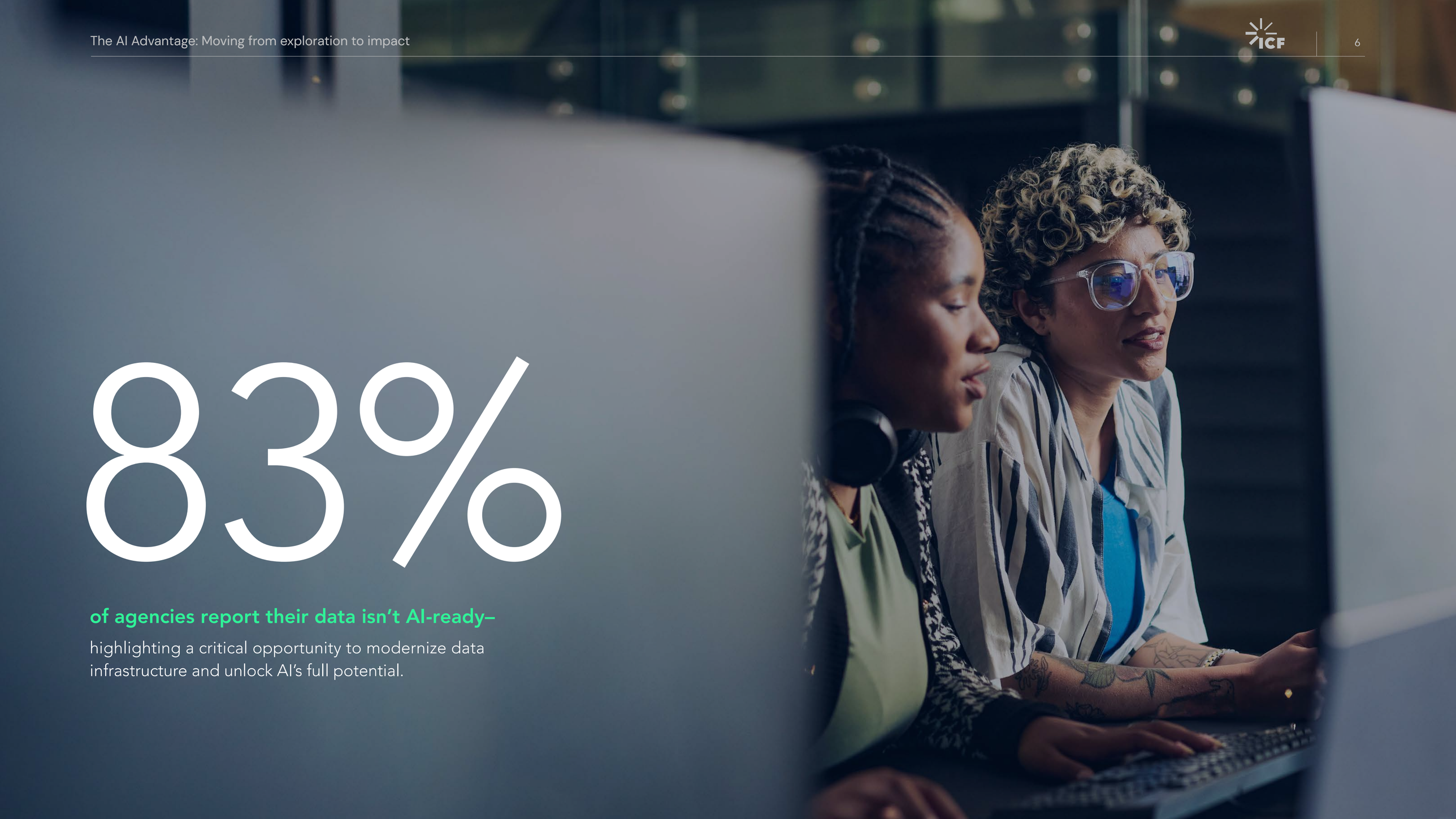
Leaders see the potential, but are navigating concerns around talent, alignment, procurement, and security. Still, optimism outweighs hesitation, and AI's role in government operations is steadily expanding.

A solid foundation, with some challenges

Tech infrastructure isn't the problem. 74% rate their infrastructure as solid, with 40% giving it an A and 34% a B. The bigger questions revolve around scaling, cost, and regulatory oversight. Nearly 40% of agencies worry about whether their infrastructure can support AI at scale, and a third cite budget concerns as a major constraint. Even so, most agencies recognize these particular challenges as hurdles to overcome, not roadblocks.

74%

of agencies say their current infrastructure is ready to support AI solutions.



83%

of agencies report their data isn't AI-ready–

highlighting a critical opportunity to modernize data infrastructure and unlock AI's full potential.

Top 5 moves agencies are making to enable AI

Clean, organized, integrated, and accessible data is the lifeblood of AI. Unfortunately, 83% of agencies report that their data isn't quite there yet. Almost a third (32%) say data issues are the single biggest barrier to AI adoption. But the good news? Two-thirds believe these problems can be fixed in a reasonable amount of time.

66%

of agency leaders feel confident that their data will be AI-ready in two years or less.

Top 5 data strategies agencies are prioritizing to support AI[1]

Agencies are moving on multiple fronts to prepare their data environments for AI. While governance, training, and modernization top the list, many are also focused on regulatory streamlining (32%), decentralizing data infrastructure (30%), and upgrading legacy systems (29%). Another 27% are working to improve data interoperability across systems. Together, these efforts reflect a broad understanding: Successful AI adoption requires coordinated progress across technology, people, and policy—not just tools.

Implementing data governance frameworks

36%

Expanding workforce training on data management and AI

36%

Partnering with external organizations for data modernization

35%

Enhancing data security and privacy measures

34%

Investing in advanced data analytics tools

33%

[1]Respondents could choose multiple responses. Percentages do not sum to 100.

Upskilling staff to unlock in-house potential

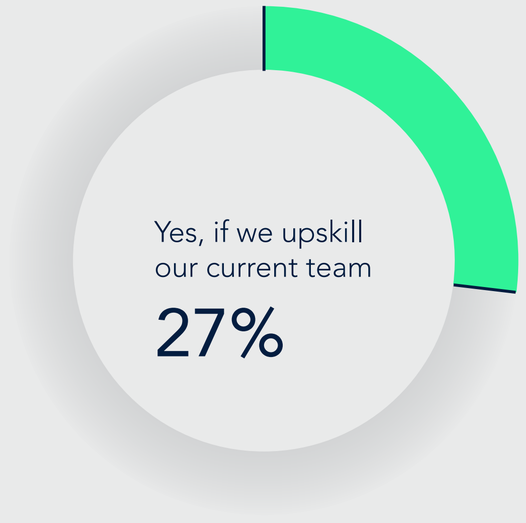
Hiring freezes and workforce reductions mean agencies must maximize the talent they already have. Seventy percent of federal agency leaders we surveyed acknowledged that they will need to upskill existing staff and/or hire new talent to implement AI effectively.

The silver lining? Most agencies believe their current workforce can adapt.

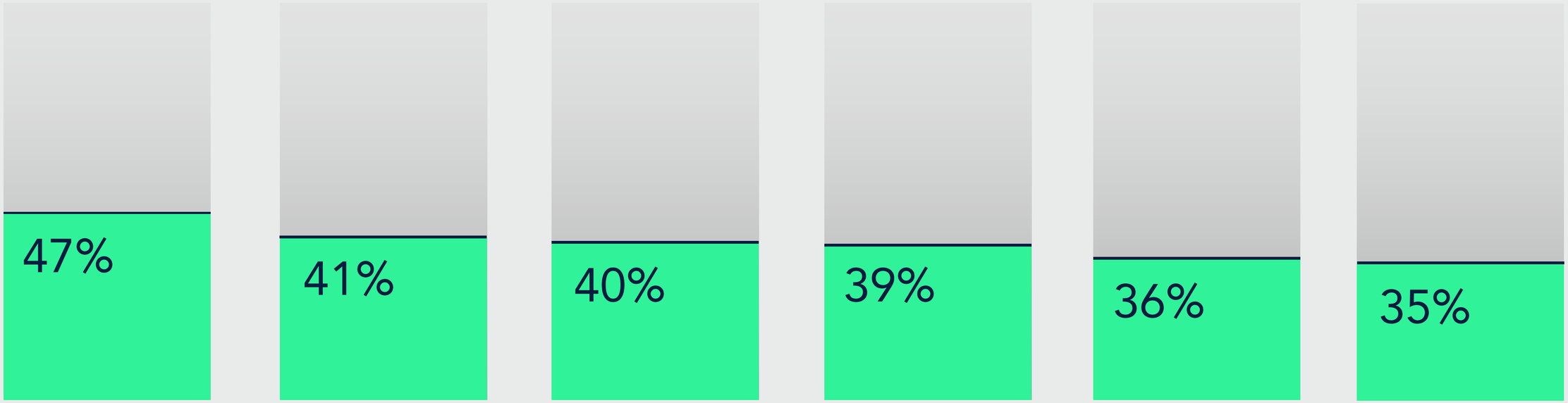
More than half (58%) say they either have—or can develop—the skills necessary for AI implementation without hiring additional staff.

Training efforts are already underway, with 36% of agencies actively investing in workforce education. The most in-demand capabilities? Data analysis and AI project management.

Does your agency currently have the skills for AI implementation?



Which specific skills does your agency need to enhance to successfully implement AI initiatives?



Where are agencies in their **AI journeys?**

While most are still experimenting, a growing minority is demonstrating what's possible—with clear structures, scaled deployment, and measurable outcomes.

41%

are running small-scale pilots

16%

are actively scaling AI efforts

8%

have mature programs and are seeing results

Getting comfortable with AI

The fear factor around AI is fading. Almost 80% of federal leaders believe AI is able to meet security and compliance expectations. That said, over half feel current AI guidelines are unclear. The path forward? Flexible and empowering governance frameworks that provide clear guidelines while ensuring security, ethics, and transparency.

79%

feel AI is secure enough for enterprise use.

Top 5 challenges to AI adoption

While data readiness and strategic clarity top the list, agencies also report major concerns around governance, compliance, and workforce capacity. Challenges like regulatory requirements (28%), lack of skilled personnel (26%), and outdated infrastructure (25%) are slowing momentum—underscoring the need for a holistic, mission-aligned approach to scaling AI.

Getting reliable and consistent data

32%

Need to establish a clear AI vision and roadmap

31%

Cost concerns/Unproven ROI

31%

Data privacy and protection

29%

Ensuring ethical use of AI

28%

AI adoption is happening. Scaling is the next challenge.

Federal agencies are investing in AI to improve mission outcomes, with 41% conducting small-scale pilots or proofs of concept. These early efforts often generate meaningful excitement and demonstrate clear potential.

But many initiatives remain stuck in pilot mode. The challenge isn't ambition—it's the complexity of scaling, driven in large part by infrastructure gaps, integration hurdles, and siloed systems.

73%

cite infrastructure and integration hurdles.

What's standing in the way of scaling AI?

Scaling AI isn't just a technical challenge—it's a stress test of strategy, systems, and structure. Our research reveals a layered mix of barriers that agencies face when moving from pilots to full-scale deployment.

The takeaway: The move from pilot to scale is less about a single roadblock—and more about navigating a network of interdependent challenges. Agencies that succeed are those that plan for AI adoption as a cross-cutting transformation effort, not a tech upgrade.

Infrastructure and integration hurdles

Scaling infrastructure and resources

39%

Integrating AI with existing systems and processes

34%

Data and funding constraints

Limited availability of high-quality, clean data

35%

Insufficient funding for large-scale implementation

29%

Oversight and operational friction

Navigating congressional or regulatory oversight

38%

Resistance to change within the agency

32%

Leadership and strategy gaps

Lack of leadership support or alignment

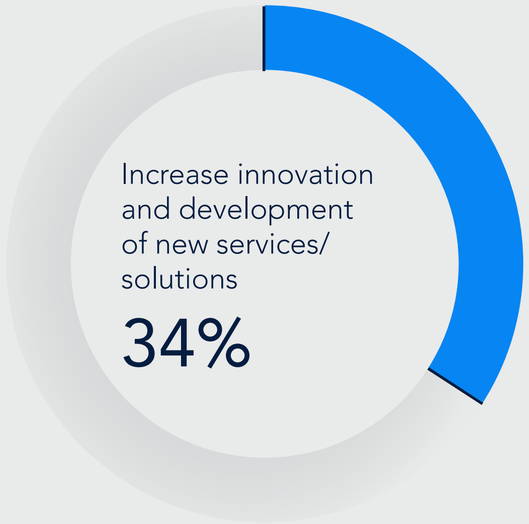
28%

Unclear strategic vision for AI adoption at scale

28%

What benefits has your agency experienced from implementing AI initiatives?

Despite challenges, federal agencies are already realizing significant benefits from AI initiatives. Notably, 35% report improved customer satisfaction and engagement, while 34% cite increased innovation and the development of new services. These positive outcomes reflect a growth mindset that spans domains—from health and energy to climate and transportation.



Exploring AI—while laying **the groundwork**

As agencies embark on AI initiatives,

50%

are focused on exploration and innovation.

51%

are prioritizing preparation and detailed planning.

How agencies are measuring the impact of AI

Federal agencies aren't relying on a single success metric—they're tracking impact across multiple dimensions, from internal efficiencies to mission outcomes.

The takeaway: To maximize the impact of AI investments, agencies are taking a balanced approach—combining pilots with planning and tracking outcomes that reflect both operational progress and mission-driven value. The focus isn't just on what AI does, but how it moves the needle for people, programs, and performance.

Operational efficiency and workflow gains

Internal process improvements/reduced administrative burdens

41%

Efficiency improvements in operations

34%

AI output and adoption metrics

Number of projects/initiatives supported by AI

38%

Number of AI projects successfully implemented

27%

Service delivery and public value

Improvements in service delivery or customer satisfaction

40%

Reduce fraud and improve compliance of grant/loan programs

30%

Data-driven decisions and mission alignment

Enhanced decision-making through predictive analytics

37%

Positive mission outcomes influenced by AI

29%

Recommendations and next steps

Lay the groundwork

Establish clear governance frameworks to ensure safe and responsible AI use, focusing on risk-adjusted guidelines that are flexible and adaptive. Embed governance into platforms to accelerate adoption and innovation.

Invest in data readiness

Prioritize data quality, organization, and accessibility to remove AI adoption barriers—and take the next step by developing data products that transform raw information into reusable assets that power faster insights and mission impact.

Upskill the workforce

Train and empower existing employees with AI-related skills to drive transformation. To realize the full value of AI, pair subject-matter experts with technologists to apply AI tools in context, adapt workflows, and accelerate innovation and outcomes.

Scale AI efforts

Move from small pilots to larger-scale implementations while measuring impact and ROI. Start by identifying high-impact use cases, establishing clear success metrics, and building the infrastructure and governance needed to support sustainable growth.

Shifting from talk to action

Using AI to create high value impact takes more than one-off pilots—it requires treating AI as a cross-cutting transformation, not just a tech upgrade. Agencies that scale AI successfully plan for integration, governance, and long-term change across systems and teams.

ICF's suite of tailored AI solutions and services helps agencies move beyond pilots with modular tools and embedded AI agents that automate complex tasks, adapt over time, and integrate with existing systems. It's a flexible, production-ready solution built to deliver measurable results—without requiring a full tech overhaul. The result: faster progress, fewer roadblocks, and AI that delivers real value from day one.

Methodological notes

This survey was conducted by Wakefield Research (www.wakefieldresearch.com) among 200 U.S. federal program & mission leaders with the following qualifying titles: program manager, mission owner, division lead, branch/area chief, CXO, CIO, VP or equivalent. Role requirement: all respondents are responsible for agency mission and for increasing positive outcomes, between February 12th and February 26th, 2025, using an email invitation and an online survey. Quotas were set for 50 employees of federal energy/climate/transportation agencies and for 50 employees of health agencies/HHS.

Results of any sample are subject to sampling variation. The magnitude of the variation is measurable and is affected by the number of interviews and the level of the percentages expressing the results. For the interviews conducted in this particular study, the chances are 95 in 100 that a survey result does not vary, plus or minus, by more than 6.9 percentage points from the result that would be obtained if interviews had been conducted with all persons in the universe represented by the sample.

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